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Mandatory shares listing effect on further capital raising in the Croatian capital market from 2002–2010

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This article investigates regulatory impact on decisions of companies to go public and raise capital in the Croatian capital market. It questions the regulatory decision of mandatory shares listing, brought in 2002, whose aim was to encourage companies of certain size of shareholders' equity to enter the capital market. The effect of mandatory shares listing on further capital raising in public by companies has been analysed by means of secondary data and survey-based answers of their chief financial officers. Financing policies of voluntarily and mandatorily listed firms were compared for statistical differences. The research results have shown that mandatory listing of shares in the capital market has not spurred public companies to issue securities and raise funds in the capital market thereafter.

Keywords: mandatory shares listing; public companies; subsequent securities offerings; Croatian capital market

JEL codes: G32, K22, O16.

1. Introduction

Capital markets are designed to enable companies to raise funds and achieve financial flexibility. The research has shown that more transparent companies are able to raise funds at more favourable terms in the financial market (Francis, Khurana, & Pereira, 2005). Companies raise funds by issuing and selling shares to investors in the process of initial public offering, as well as in subsequent offerings of securities. Two of the most frequent financial instruments issued are shares and corporate bonds.

Shares listing in the chosen capital market follows the complicated procedure of initial public offering that is beyond the scope of this article. When shares are listed in the market, the trading begins. From that moment on, the company is obliged to comply with the listing rules of the capital market. The subsequent obligations of the issuers mostly rely on the timely publication of their financial statements and other relevant information of interest to investors.

Much literature has been devoted to the role of the capital markets in the economy (Demirgüç-Kunt & Levine, 1996; Levine & Zervos, 1998; Stiglitz, 1989); mandatory and voluntary disclosure of public companies (Botosan, 2000; Chen, Chen, & Wei, 2004; Pervan, 2009; Sengupta, 1998); principles of corporate governance enforcement (Berglöf & Pajuste, 2005; Roe, 2003; Schmidt & Tyrell, 1997), and the relation between

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ownership and performance of publicly listed companies (Džanić, 2012; Kim, Kitsabunnarat, & Nosfinger, 2004; Kutsuna, Okamura, & Cowling, 2002; Mikkelsen, Partch, & Shah, 1997). From the stance of the issuers, the literature deals with various motives of primarily shares issuance. However, scarce studies examine the effect of mandatory listing of shares (Claessens, Djankov, & Klingebiel, 2000). The latter was the practice of some transition countries whose companies went through ownership transformation phase in the 1990s.

Some recent studies discuss the impact of privatisation on capital market development in transition countries. Fungáčová (2005), for example, empirically confirmed a negative impact of mass privatisation on capital market development in the medium term. According to Fungáčová (2005), liquidity indicators showed that most shares were traded only occasionally or not at all and that capital markets did not fulfil their main economic function of providing capital to enterprises. Minovic (2012) showed that Croatian market suffers from severe illiquidity, whereby daily liquidity depends on share trading of the several biggest companies on the stock exchange. Denčić-Mihajlov (2009) emphasised weaknesses in corporate governance of public companies that were forced to mandatorily list their shares in Serbia. The consequences were acceleration in ownership concentration, many low-quality and low-liquidity shares in the market, insignificant roles of institutional investors in corporate governance and distortion of the key functions of the capital market. In the Czech Republic and Lithuania mandatory listing rules eventually caused delisting of shares of numerous companies as they were not suitable for trading due to small issue size, too small free float or intransparency (Claessens, Lee, & Zechner, 2003). Due to the lack of data, the available research is mostly limited to macroeconomic indicators of capital market development such as market capitalisation, market capitalisation to GDP or market capitalisation to bank asset ratio.

The motives to list the shares in the market can be described from the issuers' perspective as well as from the perspective of the owners (founders) of the companies. Broadly speaking, the main motives to list shares from the issuing company's stance are raising funds for corporate development (Mikkelsen et al., 1997) or reputation strengthening (Röell, 1996). The owners' motives are to collect as much money as possible and diversify the risk of their investment (Geddes, 2003). The surveys on issuers' motives to list the shares in the market are mostly related to developed capital markets. Various authors bound the listing motives of issuers either to initial public offerings or to subsequent securities offerings, i.e. capital raising, whereas mandatory listing of shares is only bound to the capital market development of certain transition countries (Berglöf & Pajuste, 2005). The aim of this article is to partly fill in this research gap. As far as I am aware, it is the first article that analyses legal enforcement of shares listing in the capital market from the issuers' stance, especially with regard to the consequences of such a regulatory decision on further issuances of securities by public companies.

The research goal in this article was to investigate whether publicly listed companies subsequently raise funds in the Croatian capital market and whether there has been a difference between the voluntarily and mandatorily listed firms in terms of their proneness to raise funds in the market. The initial assumption that there is a difference in subsequent securities offerings between voluntarily and mandatorily listed firms is the main research hypothesis of the article.

This manuscript is organised in five parts. A selected literature review on the role of capital markets in enabling financing to the listed companies and the main motives of

listing shares in the market is given in the introductory part. Section 2 deals with shares listing rules in the Croatian capital market and gives a brief overview of the market activity. Subsequent offerings of securities by corporate issuers based on collected secondary data are described in section 3. The core part of the article is section 4 which analyses the survey data on CFOs' stances on subsequent securities offerings in the Croatian capital market. The last section concludes.

2. Shares listing rules and a brief overview of the Croatian capital market

The Zagreb stock exchange (ZSE) was established in 1907 but, like in other transition countries, was closed in the period of planned economy functioning. It was re-established in 1991 after Croatia declared its independence from former Yugoslavia. Parallel with the official market, the ZSE, the over-the-counter market called Varaždin Securities Market was established in 1993. The latter transformed into the second stock exchange in Croatia in 2002 (Varaždin stock exchange [VSE]) that existed until it was joined to the ZSE in late 2006. In the period of two stock exchanges existence, most issuers had their stocks listed on both stock exchanges.

In the early 1990s the Croatian capital market was rather unregulated and served privatisation purposes. In that phase the listing of companies was voluntary like in many transition countries that went through ownership transformation phase, such as Estonia, Latvia, Hungary, Poland and Slovenia (Claessens et al., 2000). The data on mandatory and voluntary listing of shares provided by these authors are widely cited elsewhere.

The adoption of the Law on Securities Market in mid-2002 marked the turning point in the Croatian capital market development. The listing of shares became mandatory not only for privatised companies, but for all companies regardless of their ownership structure. The law obliged established Croatian companies having more than 30 million kuna shareholders' capital¹ or more than 100 shareholders to list their shares in the capital market by mid-2003, regardless of whether they had planned to have initial public offering of their shares in the near future or not. The law also obliged all companies whose shares were or would be traded publicly to make their prospectuses public and available through Internet pages of the ZSE. The prospectuses should comprise the data on the issuer (financial reports for two previous years, company growth projection, ownership structure of the company, expectations on specific, industry, economy and financial market developments and risks) and the data on the shares issued (amount of paid-in capital, number of stocks available for trading, rights and obligations of shareholders).

Although the companies started to list their shares in the capital market, especially during the first half of 2003, it was the listing of secondary shares that were previously mainly kept in corporate treasuries. Stock listings were not followed by capital inflow either to the owners or to the companies.

The stock exchanges followed the regulatory path in establishing shares listing rules, by allowing the companies to list their shares even if less than 5% of the stake in companies had been publicly held. The regulation on the mandatory listing of shares was stronger than stock exchange listing rules which are presented in Table 1 in chronological order.

The ZSE and the VSE could only distinguish between companies with high and low free float by letting them list shares into different market quotations. The official market was the strictest, requiring public companies to have a minimum of 25% of shares available for public trading. However, the number of companies whose shares were listed in the first quotation has been very low. It climbed to eight on the ZSE before stock

Table 1. Free float and comparable listing criteria by regulation and stock exchange(s).

Listing requirements		Period	
		1995–2002	2002–2008
Rules prescribed by the governing law			2008 onwards
		VSE	Minimum 25%, unless approved differently, and minimum 30 million kuna shareholders' capital
First (official) quotation (Prime market)	ZSE	Minimum 25%	Minimum 25%, unless approved differently
	VSE	Minimum 25%	Minimum 25%, unless approved differently, and minimum 100 million kuna shareholders' capital
Public companies' quotation (Official market)	ZSE	N/A	Minimum 25%, unless approved differently, and minimum 30 million kuna shareholders' capital
	VSE	N/A	At least 100 shareholders and minimum 30 million kuna shareholders' capital
Regular market	ZSE	N/A	At least 50 shareholders and minimum 15% free float, 20 million kuna shareholders' capital or expected market capitalisation higher than 10 million kuna
	VSE (2nd quotation)	N/A	At least 10% issue held by 40% of total shareholders, and at least 5 million kuna shareholders' capital

Note: N/A stands for not available or not existing.

Renaming of stock exchange quotations according to the 2008 regulation is shown in parentheses.

Source: Author's compilation.

exchanges reunion, and after the merger of the stock exchanges has gradually reached 20 at the end of 2010. Regulatory and discretionary rules brought in by stock exchanges on the minimum number of shareholders and minimum free float for the official market and regular market simply did not go together. For this reason some shares were very illiquid from the first day of listing. As a consequence of such soft rules, most companies that listed shares on one or both stock exchanges have had a small free float, calculated as a share of freely traded shares in total number of shares issued. A sudden increase in market capitalisation of newly listed companies offered a false impression of the Croatian capital market development at the time. Mandatory listings and interest of some institutional investors such as investment and pension funds provoked temporarily vivid trading with some issues. The data illustrated in Figure 1 show the explosion in the average daily turnover (measured as the number of shares traded times traded share price in million kuna) and the number of listed shares, accompanied with the rising market prices, as evidenced by the value of official stock exchange index – Crobex. But when liquidity dried out in the beginning of the financial crisis in 2008, the prices of listed shares have fallen to unrealistically low levels. The falling market trend was coupled with a massive delisting of shares from the ZSE.

The first law on investment funds was enacted in 1995, while the three-pillar pension reform commenced in 2002. With certain restrictions, investment funds could heavily invest into domestic stocks. The restrictions to mandatory pension funds regarding the domestic shares' purchase were limited to few shares in the first (official) quotation until 2007. After that, they were allowed to purchase shares from other quotations provided that little free float is offset by higher market capitalisation. However, neither the listing of shares nor the presence of institutional investors provoked raising capital

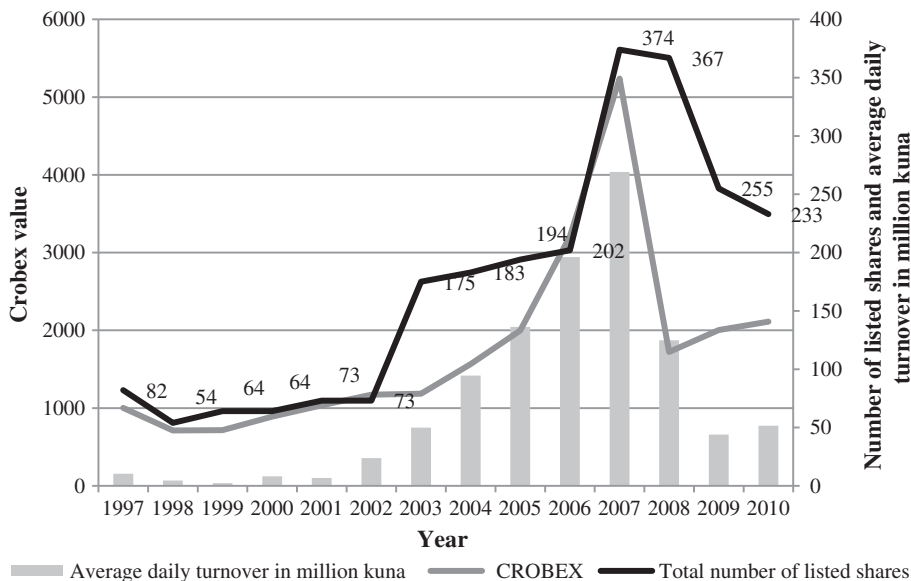


Figure 1. Total number of listed shares, CROBEX, and average daily turnover of shares in million kuna on the ZSE, 1997–2010.

Source: Author's illustration based on the data from the ZSE.

by the listed Croatian companies. In addition, the capital market has seen only seven initial public offerings (IPOs) from 2006–2008, two of which were partial privatisations.

3. Subsequent offerings of securities in the Croatian capital market

One of the primary motives to issue shares by IPO and list them in the market is to achieve financial flexibility, i.e. to enable subsequent offerings of securities under more favourable terms (Pagano, Panetta, & Zingales, 1998). Subsequent securities offerings are primarily considered as offerings of additional shares and corporate bonds. Croatian example shows that commercial papers, regardless of being money market instruments, are also listed in the capital market. Due to the possibility of additional tranche issuances under the same commercial paper programme, commercial papers are also considered in additional securities offerings. Whereas public companies are allowed to choose between subsequent shares, bonds and commercial papers offers, private companies can issue long-term and short-term debt instruments only.

Croatian law enables issuers to raise capital by the public offering of shares or by private placement – with or without prospectus issuance. Experience has shown that companies more frequently engage into private placements of securities (Table 2). The data in the first column of Table 2 show that after the adoption of the mandatory listing rule in mid-2002, total shareholders' capital raised by the real sector of economy by public shares offering in the market was barely exceeding 80 million kuna. However, the official statistics takes into account registered capital only, excluding any capital gains resulting from a higher selling price that might have been achieved in the process of shares offering to the market. For this reason the reported capital raised by the companies is underestimated.

Overall, the financial sector was more active in raising capital compared to the real sector of the economy in the entire period of 1997–2010. Unfortunately, the separate data for private offerings without prospectus for the real and financial sector are not available after 2006. The private placements of securities with or without prospectuses had more than a 95% share in total shares offerings of 32.5 billion kuna. Initial public offerings of shares were done by companies that willingly offered and listed their shares in the market during the one-off IPO boom beginning at the end of 2005, with public offer of shares of VIRO Sugar Factory (VIRO tvornica šećera d.d.) and ending with public offer of shares of Optima telecom in early 2008.² The latter is calculated in the official statistics after the supervisory agency's approval of the offering prospectus in 2007. These IPOs took place in the period of rising market prices and have benefitted from positive sentiment of investors surrounding two privatisations of the shares of petrol and gas company – INA d.d. in late 2006 and national telecom – HT d.d. in the autumn of 2007.³ None of the companies that listed their shares due to legal obligation has been involved into subsequent public offering of its shares. Historically, the issuers that raised most capital in the market up to 2006 by public offerings of securities were Pliva d.d. (taken over by Actavis in 2008 and TEVA thereafter) and Podravka d.d. Both companies listed their shares willingly in the 1990s.

The corporate bond market is also dominated by issuers that voluntarily listed their shares, with three IPO participants from the first and the only one IPO wave in the Croatian capital market so far, as is shown in Table 3. It is evident that all three IPO participants tested the appetite of investors by bonds offering prior to the IPO of their shares. Public companies had a 26.4% share in total corporate bonds issuances to the public, denominated in kuna from 1999–2010 and almost a 70% a share in euro-denominated corporate

Table 2. Shares offerings in the Croatian capital market by method of issuance for financial and real sector of economy, 1997–2010, in kuna.

Year	Public offer			Private placement with prospectus issuance			Private placement without prospectus issuance			Altogether		
	Real sector	Financial sector	Total	Real sector	Financial sector	Total	Real sector	Financial sector	Total	Real sector	Financial sector	Total
1997	19,950,000	819,458,000	839,408,000	322,874,176	1,262,911,400	1,585,785,576	318,125,135	169,900,000	488,025,135	660,949,311	2,252,269,400	2,913,218,711
1998	104,999,700	142,140,000	247,139,700	170,304,100	1,717,500,000	1,887,804,100	596,430,200	151,723,596	748,153,796	871,734,000	2,011,363,596	2,883,097,596
1999		29,045,000	29,045,000	78,354,500	91,894,800	170,249,300	1,238,883,163	108,436,500	1,347,319,663	1,317,237,663	229,376,300	1,546,613,963
2000		20,000,000	20,000,000	175,446,800	443,260,000	618,706,800	117,962,946	437,134,300	555,097,246	293,409,746	900,394,300	1,193,804,046
2001		13,000,000	13,000,000	64,096,000	31,544,800	95,640,800	1,218,314,700	728,007,500	1,946,322,200	1,282,410,700	772,552,300	2,054,963,000
2002		11,825,000	11,825,000	132,554,100	71,557,600	204,111,700	1,728,747,700	1,092,345,600	2,821,093,300	1,861,301,800	1,175,728,200	3,037,030,000
2003		1,200,000	1,200,000	22,936,400	77,219,000	100,155,400	322,922,166	653,562,700	976,484,866	345,858,566	731,981,700	1,077,840,266
2004		11,000,000	11,000,000	107,844,000	44,980,500	152,824,500	450,709,513	699,520,800	1,150,230,313	558,553,513	755,501,300	1,314,054,813
2005	34,666,700	104,500,000	139,166,700	312,132,500	159,557,900	471,690,400	455,428,344	951,336,100	1,406,764,444	802,227,544	1,215,394,000	2,017,621,544
2006			0	261,351,520	1,243,874,900	1,505,226,420	N/A	N/A	1,277,811,430	261,351,520	1,243,874,900	2,783,037,850
2007	46,918,800		46,918,800	254,447,885	532,698,080	787,145,965	N/A	N/A	5,107,597,645	301,366,685	532,698,080	5,941,662,410
2008		24,190,000	24,190,000	675,750,710	1,877,094,700	2,552,845,410	N/A	N/A	3,101,168,540	675,750,710	1,901,284,700	5,678,203,950
2009		30,000,000	30,000,000								30,000,000	30,000,000
2010		26,000,000	26,000,000								26,000,000	26,000,000
1997-2010.	206,535,200	1,232,355,000	1,438,890,200	2,578,092,691	7,554,093,680	10,132,186,371	6,447,523,867	4,991,967,096	20,926,068,578	9,232,151,758	13,778,418,776	32,497,148,149
Share in total	14.35%	85.65%	100.00%	25.44%	74.56%	100.00%	56.36%(up to 2005)	43.64%(up to 2005)	43.64%(up to 2005)	28.41%(up to 2005)	42.40%(up to 2005)	-
Share in altogether	0.64%	3.79%	4.43%	7.93%	23.25%	31.18%	64.39%		64.39%			100.00%

Note: N/A stands for not available.

Source: Data are collected and adapted from Croatian Financial Services Supervisory Agency – HANFA (abbreviated in English as CFSSA).

Table 3. Corporate bonds issuance by public companies listed on the ZSE, 2002–2010.

ZSE	Voluntary listing	Mandatory listing	Collected capital		Year of issuance	Maturity	Term	Nominal interest rate
			In kuna	In euro				
		Belišće d.d.**		10,000,000	17.01.2002	17.01.2005	3	7.380%
	Plava laguna d.d.			8,000,000	14.01.2005	14.01.2009	4	6.000%
	Podravka d.d.**			12,000,000	5.02.2002	25.08.2004	2	6.750%
				27,000,000	20.02.2004	20.02.2007	3	5.000%
	Pliva d.d.**		375,000,000		19.05.2006	13.06.2011	5	5.125%
	Atlantic grupa d.o.o. (IPO in 2007)**			75,000,000	12.05.2004	12.05.2011	7	5.750%
				15,000,000	13.07.2004	13.07.2007	3	5.750%
	Ingra d.d. (IPO in 2007)**	Medika d.d.**	115,000,000		7.12.2006	7.12.2011	5	5.750%
	OT-Optima telekom d.d. (IPO in 2007)		200,000,000	16,500,000	11.07.2005	11.07.2008	3	4.500%
	Total amount of bonds offered by public companies		940,000,000		7.12.2006	7.12.2011	5	6.125%
	Total amount of corporate bonds offered in the market		3,554,297,374	163,500,000	5.02.2007	05.02.2014	7	9.125%
							(4)*	(6.11%)*
							(4.7)*	(7.32%)*

*Numbers in parentheses are simple averages.

**Companies that have been also active in commercial paper offerings.

Source: Author's compilation from the data available on the ZSE.

bond issuances. The rest of the capital was raised by the companies in private. Regardless of the offering method, the secondary corporate bond market has had very thin liquidity, if any. The bonds have been mostly held by investors to their maturity, if they were not called off earlier by the issuer.

Due to numerous tranches of commercial papers issued so far, the manually calculated data might be prone to error, but a general observation is that most public and private companies that had either public offerings of shares or corporate bonds have also been active in the commercial paper market. In addition to bond issuers that issue commercial papers, which are marked by two asterisks in Table 3, public companies that appear to be more or less active in commercial paper market have been Dalekovod, Petrokemija, Lura, Kraš, Atlantska plovodba, IGH, Varteks and Istraturist. However, commercial papers are primarily offered and written by institutional investors in private placements. Public offers of commercial papers were only conducted by Plava laguna, Pliva and Podravka. All three issuers listed their shares into the capital market in the 1990s. The first company is from tourism while the latter two represent manufacturing sector.

4. Research methodology and results

Research hypothesis. *There is a difference between the proneness to capital raising in the market between the mandatorily and voluntarily listed companies.*

A survey of public companies CFOs from real sector of Croatian economy was conducted in the first quarter of 2010 with the aim of examining whether raising funds by public companies in the market is related to their motive of listing. In other words, the research goal was to analyse whether the issuers, once their shares are listed in the market, use the opportunity to raise the capital in subsequent shares offerings.⁴

The response rate was 32%, meaning that 48 out of 150 CFOs of public companies returned the filled-in questionnaire. The survey was targeted to the representatives of the real sector of the economy. It is because the banks, as the largest financial institutions in the country, have mostly had private offerings of securities to fulfil the regulatory capital adequacy requirements. Furthermore, earlier research has shown that financial institutions are generally interested in investing funds into domestic corporate bonds (Miloš, 2004).

Seventy-seven percent of CFOs responded that their companies listed shares in the market due to legal obligation. For the remaining 23% of issuers, the main motives of listing were: raising funds, lowering costs of finance and achieving better reputation (45% of voluntarily listed firms or 10% of the entire sample) followed by financial flexibility, market valuation and existing owners' exit (36% of voluntarily listed firms or 8.3% of the entire sample). Companies that listed their shares purely due to regulatory reasons were 63-years-old on average while those that listed their shares willingly were 21 years younger. Pearson chi-square statistics was used to compare the differences between mandatorily and voluntarily publicly listed firms.

As evidenced in Table 4, the sample covered 48 public companies from 12 counties, whereby the companies from the City of Zagreb are represented most (35%). This data is in line with Zagreb city registered companies shares in total population of stock-exchange listed companies in Croatia. Mandatory shares listing in coastal counties (Zadar, Split-Dalmatia, Dubrovnik-Neretva, Istria county) was primarily bound to the reputable companies from the tourism sector, while companies from manufacturing business come mostly from City of Zagreb and Zagreb county. Two thirds of answers were

Table 4. Sample characteristics.

Industry type	Law obligation		County name	Law obligation		Total	No. of shareholders before listing	Law obligation		Total
	No	Yes		No	Yes			No	Yes	
Manufacturing	2	13	City of Zagreb	6	11	17	Unknown	0	4	4
Construction	1	2		2	2	4		3	1	4
Transport	0	3	Split-Dalmatia county	1	4	5	11-50	2	1	3
Tourism	0	10		0	6	6	51-100	1	0	1
IT	1	3	Istria county	0	3	3	101-500	1	13	14
Trade	2	1	Dubrovnik-Neretva county	1	2	3	501-1000	1	8	9
Extraction	1	1	Međimurje county	1	0	1	1001-5000	1	7	8
Agriculture	0	1	Koprivnica-Križevci county	0	3	3	5001-10,000	1	2	3
Consulting	2	0	Zadar county	0	2	2	>50,000	1	1	2
Other	2	3	Primorje-Gorski Kotar county	0	2	2				
			Osijek-Baranja county	0	1	1				
			Požega-Slavonia county	0	1	1				
			Vukovar-Srijem county	0	1	1				
Total	11	37	Total	11	37	48	Total	11	37	48
Pearson χ^2						16.77*				18.134**

*Significant at 10%.

**Significant at 5%.

Source: survey results.

received from the non-manufacturing sector that is slightly higher than overall share of non-manufacturing businesses from real sector of the economy in the entire population of publicly listed firms. The Pearson chi-square test confirmed a 5% significant difference in the number of shareholders between mandatorily and non-mandatorily listed firms. The majority of companies that mandatorily listed their shares on the stock exchange had between 100 and 1000 shareholders, while some that listed their shares earlier had a larger number of shareholders. Companies with a smaller number of shareholders were listed due to large shareholders' capital threshold. Most companies that had other reasons for listing had a smaller number of shareholders – up to 100, while some CFOs cited a much larger number, probably due to shares allocations to workers before listing.

When asked to estimate the effect of listing, CFOs chose between positive, negative and neutral effects. Sixty-four percent of firms that listed their shares willingly had a positive perception of the effect of listing, while 73% of mandatory listed firms had neutral stance towards listing effect. Therefore, the Pearson chi-square test caught a significant difference between the subsamples at 5% level (Pearson chi-square value = 7.807). With regard to particular subjective stances on listing, respondents were offered five answers on a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The column 'no answer' was deliberately put in as an indicator for absence of any attitude. The statistics of the received answers is presented in Figures 2 to 4.

Only seven CFOs cited that their costs of financing decreased after the listing, as illustrated in Figure 2, while seven issuers did not want to answer or were undecided. For almost 70% of issuers, the costs of financing remained unchanged after the listing. As evidenced in Figure 3, six companies only achieved better shares liquidity. It confirmed the fact that the free float of Croatian companies is too small on average, particularly for mandatorily listed firms. The most important effect was management reward related to the achieved business results after shares listing that was cited by almost 30% CFOs in Figure 4. A 10% significant statistical difference between voluntarily and mandatorily listed firms was spotted with management reward and better shares liquidity. However, in almost 80% of companies that went public due to legal obligation, nothing has changed in terms of rewarding the management according to the accomplished business results.

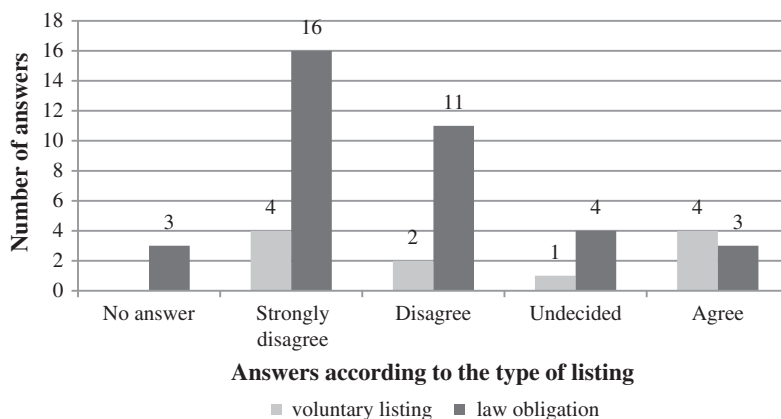


Figure 2. Cost of capital decrease after the listing.
Source: Survey results.

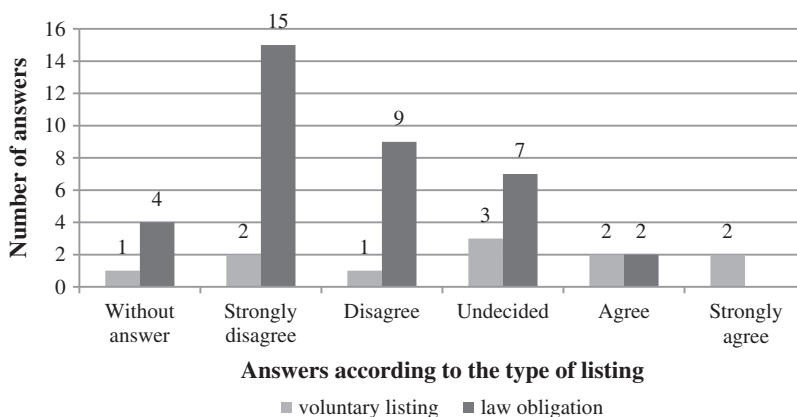


Figure 3. Better shares liquidity achievement after the listing.
Source: Survey results.

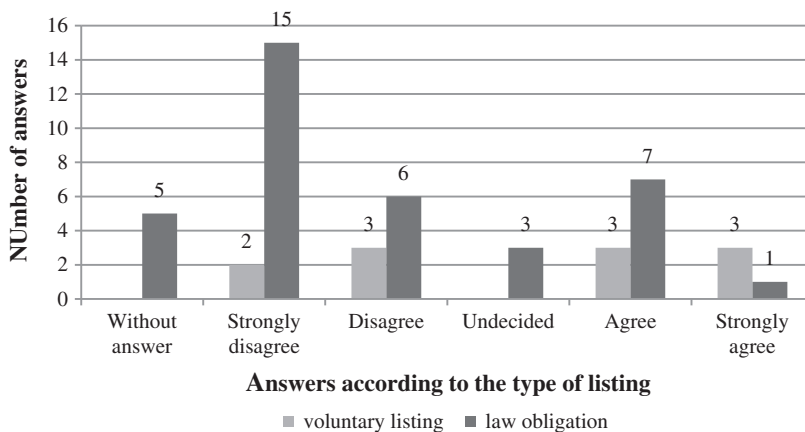


Figure 4. Management reward after the listing.
Source: Survey results.

Eighty-six percent of mandatorily listed companies do not prefer any capital market instrument, as opposed to 27% voluntarily listed firms (statistical difference between subsamples is significant at 1% level with Pearson chi-square value at 23.038). Only four companies had subsequent experience with securities issuance after the listing – three from voluntary listing and only one firm from mandatory listing, confirming the results from collected secondary data. When asked to comment on reasons, the usual answers were that: the number of transactions in the market is too small; there is no market interest to invest in low-profit sectors; legal requirements caused only additional work, and so on. Statistical tests confirmed that there are no significant differences between the two subsamples with regard to the illiquidity of shares and corporate bond market, listing maintenance costs, complicated procedure of securities issuance, lack of investors in the market and belief on unrealistic market prices. CFOs wrote that transparency requirements provoked more thorough costs and investments' analysing,

Table 5. Likelihood of securities issuance.

	Shares issuance			Corporate bonds issuance			Commercial paper issuance				
	Possibility	Law obligation		Possibility	Law obligation		Possibility	Law obligation			
		No	Yes		Total	No		Yes	Total	No	Yes
No answer	0	7	7	No answer	0	11	11	No answer	0	11	11
Negligible	2	16	18	Negligible	2	15	17	Negligible	2	17	19
Small	2	12	14	Small	5	6	11	Small	4	5	9
Moderate	3	0	3	Moderate	2	5	7	Moderate	3	4	7
Substantial	3	2	5	Substantial	1	0	1	Substantial	1	0	1
Great	1	0	1	Great	1	0	1	Great	1	0	1
Total	11	37	48	Total	11	37	48	Total	11	37	48
Pearson			21.439***				14.484**				15.586***

**Significant at 5%.

***Significant at 1%.

Source: Survey results.

Table 6. Spearman correlation matrix.

	Law obligation to list shares	Perception on effect of shares listing	Preferred capital market instrument	Subsequent securities issuance after the listing	CP financing Shares financing	CB financing shares issuance	Possibility of CB issuance	Possibility of CP issuance
Law obligation to list shares	1							
Perception on effect of shares listing	-.315**	1						
Preferred capital market instrument	-.583***	.500***	1					
Subsequent securities issuance after the listing	-.374***	.278*	.334**	1				
CP financing	-.234	.178	.236	.630***	.421***	.368**	.412***	.301**
Shares financing	-.292**	.307**	.178	.713***	1	.748***	.141	.378***
CB financing	-.324**	.247	.334**	.421***	.781***	1	.383***	.437***
Possibility of shares issuance	-.502***	.392***	.278*	.368**	.781***	.15	.372***	.341**
Possibility of CB issuance	-.451***	.364**	.188	.339**	.383***	.15	.538***	.534***
Possibility of CP issuance	-.510***	.411***	.233	.301**	.437***	.372***	1	.892***
					.330**	.341**	.892***	1

*** 1% level of significance.

** 5% level of significance, *10% level of significance.

CP = commercial paper, CB = corporate bonds.

Source: Based on survey results.

enabling easier access to capital. These answers are in line with the number of firms that prefer capital market instruments for financing and are also in line with the results of capital costs decrease after the listing. However, the preference for capital market financing did not result in subsequent securities issuance.

One goal of the survey was to reveal whether the financing policies of the enterprises that mandatorily listed their shares differ from the financing policies of enterprises that have done it voluntarily and what financing policies could be expected in the future. Again, as is shown in Table 5, the companies that listed shares in the market due to their own reasons, have more chance to issue securities again, although this likelihood is not very big. It is a matter of concern that 23% of mandatory issuers refused to declare their attitude on this matter, while at least 31% of them said that they would not issue securities again.

In addition, the Spearman correlation coefficients shown in Table 6 reveal that law obligation is significantly negatively correlated with preference for capital market instruments issuance, perception on effect of shares listing, additional securities issuance after the listing as well as with the possibility of shares, corporate bonds and commercial paper issuance (Table 5). Additional securities issuance after the listing is significantly positively correlated with shares, bonds and commercial paper financing and the possibility of financing with such instruments. The companies that are likely to issue shares are also more likely to issue corporate bonds and commercial paper.

5. Conclusion

The research conducted in this article showed that the effect of mandatory shares listing created only a temporary supply of shares in the market. It is comparable with the research of Fungáčová (2005), Denčić-Mihajlov (2009) and Minovic (2012). The lack of securities offerings subsequent to the shares listing has shown that most public companies in Croatia have not even been considering the capital market as a possible way out of their financial problems. Only companies that have either been willingly engaged into the IPO process or that have listed their shares in the market voluntarily regardless of the IPO appeared to subsequently offer securities to investors through public offer or private placement. A few of them have benefited from the rise of the capital market in 2005–2007 and raised funds by either commercial paper and/or corporate bonds issuance.

Overall, the voluntary issuers of shares had more positive perception on shares listing, while neutral stance prevailed within the group of companies that were legally obliged to do so. Voluntary shares issuers had also been younger than mandatory shares issuers, whereby the companies aged 50 and above represented almost 68% of the mandatory issuers sample. Only one company that listed its shares due to legal obligation has offered securities to the public after the listing. The percentage of subsequent securities offerings and establishing management reward scheme according to the business results goes, in fact, much more in favour of public companies that listed the shares due to other reasons, but legal. The results of primary research were supported by secondary data on additional securities issuance by public companies from real sector of the economy subsequent to shares listing.

Although the decision on securities offerings is primarily conditional on the will of the company's owners and CFOs, the regulation could have done much more to stimulate additional securities offerings in Croatia. A significant problem the regulation

tolerates is small free float of many public companies, which undermines liquidity in the market. Companies whose shares are listed in the market for fulfilling legal obligation only, companies that do not want to be transparent and companies that are not ready to make higher number of their shares available for trading do really not have to be present in the market at all.

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Notes

1. On 25 July 2002, when the law came into force, the official exchange rate of EURHRK was 7,363,046, meaning that 30 million kuna corresponded to 407 million euro of capital.
2. Excluding two companies that were privatised, five companies undertook IPOs of their shares. They were: VIRO, Magma, Veterina, Atlantic group and Optima telecom. Two companies (Magma and Atlantic group) came from retail trade and distribution, VIRO and Veterina represented manufacturing sector, while Optima telecom was from telecommunications sector.
3. d.d. is a Croatian abbreviation for public limited company, i.e. plc.
4. The survey was also targeted to the companies in private, but this survey results are not disclosed in this article, although the stances of CFOs of the companies in public and the companies in private are mutually comparable.

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